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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,697	02/08/2002	Andre D. Cropper	83708THC	2090
7590 Thomas H. Close Patent Legal Staff Eastman Kodak Company 343 State Street Rochester, NY 14650-2201		01/08/2007	EXAMINER TUROCY, DAVID P	
			ART UNIT 1762	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	01/08/2007	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/071,697

Applicant(s)

CROPPER ET AL.

Examiner

David Turocy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/19/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 2,5,6 and 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendments, filed 10/19/2006, have been fully considered and reviewed by the examiner. The examiner notes the amendment to the drawings and therefore the objection to such has been withdrawn. Also, the examiner notes the amendment to claim 1. In view of the amendments, the obviousness double patenting rejections over US patent 6623608 has been withdrawn because the reference fails to teach forming the resistive film after forming the OLED on the substrate. Claims 1-11 remain pending in the instant application, with claims 2, 5-6, and 9-11 withdrawn due to a restriction requirement.

### ***Response to Arguments***

2. Applicant's arguments filed 10/19/2006 have been fully considered but they are not persuasive.

The applicants have argued against the combination of '432 (Umemoto et al.) and '604 (Geaghan), stating that by modifying the '432 reference with the OLED film is contrary to the teachings of the reference because '432 is specifically directed to an LCD display and '604 is directed to a touch screen with a polarizer. However, the examiner disagrees. The references taken collectively would suggest to one of ordinary skill in the art that a touch screen comprising an LCD screen as taught by '432 can be modified to use an OLED screen because '604 discloses that LCD's and OLED's are known and suitable light emitting displays for formation of a touch screen. Please note that the test of obviousness is not an express suggestion of the claimed invention in any

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or all references, but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them (*In re Rosselet*, 146 USPQ 183). Additionally, the examiner notes the touch screen of '432, itself may include a polarizer (Column 3, lines 10-15).

All other arguments by the applicant are directed to newly added limitations that were not present in the previously rejected claims and therefore such arguments are deemed moot and will be addressed in the rejections to follow.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over US Patent 6814642 by Siwinski et al., hereafter '642.

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

'642 teaches a method for forming a OLED and touch screen, wherein the OLED is sensitive to high temperature and the touch screen includes a resistive film (abstract, figure 8). '642 discloses providing a transparent substrate, forming a flat panel OLED display on one side of the substrate and forming a resistive film using a low temperature technique on the other side of the substrate and forming a resistive touch screen on the resistive film (Column 5, lines 5-25, column 1, lines 45-61, figure 8, figure 2a). '642

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discloses forming a first OLED device on the substrate and then forming the resistive film on the opposite side of the substrate (Column 6, lines 48-68).

'642 fails to explicitly disclose depositing the resistive film at a temperature less than 150°C, however, it is the examiners position that the process parameter of temperature is a known result effective variable. If temperature were too low it would result in improper coating and too high a temperature would result in detriment to the substrate.

Therefore it would have been obvious to one skill in the art at the time of the invention was made to determine the optimal value for the temperature of deposition used in the process of Siwinski through routine experimentation, to effectively deposit the resistive film without effecting the already deposited layers.

6. Claims 1 and 8 is rejected under 35 U.S.C. 103(a) as being obvious over US Patent 6424094 by Feldman et al., hereafter '094.

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application

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and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

'094 teaches a method for forming a OLED and touch screen, wherein the OLED is sensitive to high temperature and the touch screen includes a resistive film (abstract, Column 3, lines 5-15, Column 4, line 59-Column 5, line 12). '094 discloses providing a transparent substrate, forming a flat panel OLED display on one side of the substrate and forming a resistive film using a low temperature technique on the other side of the substrate and forming a resistive touch screen on the resistive film (abstract, Column 3, lines 5-15, Column 4, line 59-Column 5, line 12, column 7, line 15, Column 11-Column 12).

'094 fails to disclose forming the resistive film on the substrate after the formation of the OLED film on the other side, however, it is within the skill of one ordinary in the art to recognize two ways of forming the successive films, either by first forming the OLED film and then forming the resistive film or visa versa. Therefore, it would have been obvious to one of ordinary skill in the art to have selected either method of forming, including first forming a OLED device on one side of the substrate and then forming a resistive film on the opposite face with a reasonable expectation of success. The prior art can be modified or combined to reject claims as prima facie obvious as

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long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375.

'094 fails to explicitly disclose depositing the resistive film at a temperature less than 150°C, however, '094 discloses the OLED is sensitive to high temperature and therefore it is the examiners position that the process parameter of temperature is a known result effective variable. If temperature were too low it would result in improper coating and too high a temperature would result in detriment to the substrate.

Therefore it would have been obvious to one skill in the art at the time of the invention was made to determine the optimal value for the temperature of deposition used in the process of Feldman through routine experimentation, to effectively deposit the resistive film without effecting the already deposited layers.

Claim 8: '094 discloses an active matrix OLED (Column 2, lines 34-60).

7. Claims 1, 3-4, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6982432 by Umemoto et al, hereafter '432 in view of US Patent Publication 2001/0046604 by Geaghan, hereafter '604 and further in view of US Patent 6534200 by Heuer et al., hereafter '200.

'432 teaches a method for forming an integrated LCD and touch screen, wherein the touch screen includes a resistive film (figures, abstract). '432 discloses providing a transparent substrate, forming a LCD display (3a) on one side of the substrate and forming a resistive film (41) using a low temperature technique on the other side of the substrate and forming a resistive touch screen (4) on the resistive film (abstract, figures,



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Column 2, line 57-Column 3, line 40, Column 6, lines 15-20, column 7, lines 20-25).

'432 suggests forming the resistive film (41) directly on the substrate including the LCD screen (Column 6, lines 17-57).

'432 discloses forming a integrated display device with a resistive touch screen and a LCD, but fails to disclose using a OLED film. However, '604 discloses combining touch screens with a number of display devices, including LCD, CRT OLED, and plasma (0045). Therefore, taking the references collectively, it would have been obvious to one of ordinary skill in the art to form a OLED in the process of '432 with a reasonable expectation of success because '604 discloses touch screens are known to be used with OLEDs. The prior art can be modified or combined to reject claims as prima facie obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375.

'432 in view of '604 teach all the limitations of these claims as discussed above and '432 also disclose forming the resistive film by sputtering ITO, however, the references fail to teach applying a resistive polythiophene by spin coating.

'200 discloses polythiophene deposited by spin coating is a known equivalent for ITO used as transparent electrode films (Column 22, lines 1-15). Substitution of equivalents requires no express motivation. *In re Fount*, 213 USPQ 532 (CCPA 1982); *In re Siebentritt* 152, USPQ (CCPA 1967). Alternatively, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify '432 in view of '604 to use a polythiophene deposited by spin coating as a transparent

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electrode with a reasonable expectation of success because '200 discloses polythiophene deposited by spin coating is a known and suitable electrode material for display devices and the selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

'432 in view of '604 and '200 fails to explicitly disclose spin coating at a temperature less than 150°C. However, it is the examiners position that the process parameter of temperature is a known result effective variable. If temperature were too low it would result in improper coating and too high a temperature would result in detriment to the substrate. Therefore it would have been obvious to one skill in the art at the time of the invention was made to determine the optimal value for the temperature of deposition used in the process of '432 in view of '604 and '200 through routine experimentation, to effectively deposit the resistive film without effecting the already deposited layers. Additionally, as evidenced by the applicant's specification, at paragraph 0015, spin coating is known in the art as a low temperature coating.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over '432 in view of '604 and '200 and further in view of US Patent 6229506 by Dawson et al., hereafter '506.

'432 in view of '604 and '200 are applied here for all the same reasons as applied above, however, the references fail to disclose providing an active matrix display,

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however, '506 discloses an active matrix display is known and suitable for OLED film and using an active matrix display only illuminates the for the pixels that are activated, thereby conserving energy and power (Column 1).

Therefore, it would have been obvious to one of ordinary skill in the art to modify '432 in view of '604 and '200 to use an active matrix display with a reasonable expectation of success to reap the benefits of providing a display with reduced power consumption because '506 discloses active matrix displays are known and suitable for use with OLED films.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David Turocy  
AU 1762



**TIMOTHY MEEKS**  
**SUPERVISORY PATENT EXAMINER**